±120V DC Input Industrial PC ATX 2.01 & 2.03 Switching Mode Power Supply

Series	Model No.	Output Watts	Input Voltage	Input Voltage range	Polarity reverse protection	Input Connector
120	STC-1201300	1300W continuous	±120V DC	±90V ~ ±145V DC	Not Protected	Screw Terminal
120	STC-1201300-T	1300W continuous	±120V DC	±90V ~ ±145V DC	Not Protected	Cable Harness

* **H version (Black color chassis)**

ENVIRONMENTAL CONDITIONS:

- Cooling: Forced Air-cooling, 80x80x38 mm Fan x 1 pc
- Fan type: DC type, 2 x Ball Bearing, 6200 rpm, Optional Fan Control Card
- Fan Noise Level: 40 dBA (DELTA fan brand Official Data at 4000 rpm, 46.62 CFM) @ Full Load
- Fan Noise Level tested: 58 dBA @ Distance 1m (DELTA fan brand 4000 rpm, 46.62 CFM) @ Full Load
- Fan brand: DELTA, NMB, SUNON, SUNON IP68 (for H version). Specifications are equivalent
- Operating Temp.: 0°C~+50°C Full Load
- Operating Temp.: / **H version** -30°C~+60°C Full Load
- Output Power: 100% @ 50°C, 70% @ 60°C, 50% @ 70°C
- Output Power: / **H version** 100% @ 60°C, 70% @ 65°C, 50% @ 70°C
- Operating Humidity: 20%~85% RH (Non condensing
- Operating Humidity / **H version**95% RH Non condensing
- Storage Temperature: -20°C~+80°C
- Storage Humidity: 10%~90% RH. (Non condensing)
- Operating Altitude: 10M Below Sea level to 3000M Above Sea level

DC INPUT CHARACTERISTICS:

- Input connector 200A/300V UL Approved Gold Plated Brass 2 Pin 12.5mm Screw Terminal
- Input connector (T-option) Input Cable Harness (refer to STC-DTD-255-T enclosure drawing) SB175 connector
- Input Current 10A/17A(**1300W**) @Full Load High Line & Low Line
- Inrush Current Less than 80A Cold start @25°C ambient

DC OUTPUT CHARACTERISTICS:

Output Voltage	Regulation			Output Current 1300W		Ripple & Noise
	Load	Line	Cross	Min.	Max.	
+5V	±5%	±1%	±5%	0A	25A	50mV
+12V				0A	100A	120mV
+3.3V				0A	22A	50mV
-12V	±8%			0A	0.3A	120mV
+5VSB	±5%			0A	3.5A	50mV
The output current of combined load on +3.3 V & +5V DC output shall not exceed				**40A**		**A**
Maximum continuous total DC output power shall not exceed				**1300**		**Wattage**

OVERALL PERFORMANCE:

- Efficiency: 80% typical @120V DC Full Load
- Hold up time:
- Rise time:
- Power Good Signal: TTL Compatible signal, on delay 100~500ms, off delay 1ms min.
- Short Circuit Protection (SCP): All output equipped with SCP (shutdown and latch off)
- Over Power Protection (OPP): Peak power protected to 130%±10% of continuous rated power (shutdown and latch off)
- Over Voltage Protection (OVP):+3.3V@4.5V, +5V@6V, +12V@15.6V

RELIABILITY:

- MTBF: >90,000 hours @max. Load, 120V DC & 25°C ambient
- Safety Standards: Meet IEC60950-1, EN60950-1
- Safety Approved:
- EMI Compatibility (EMC): EN55032:2015/AC:2016, CISPR32:2015, EN61000-3-2:2014, EN61000-3-3:2013, EN55024:2010 +A1:2015

ISOLATION:

- INPUT and OUTPUT are isolated by transformers and optical couplers
- Dielectric Withstand: INPUT to OUTPUT: 2000V AC for 60 seconds
- Dielectric Withstand: INPUT to FRAME GROUND: 2000V AC for 60 seconds
- For Production: 100% Tested INPUT to frame GROUND: 2000V AC for 1 second
- Leakage Current: <0.005μA @120V DC

Output Device Connector Specific:

- ATX 24 Pins x 1 Molex 29-01-2240 or equivalent
- +12V(P4) 4 Pins x 1 Molex 39-01-2040 or equivalent
- HDD, DVD 4 Pins x 2 Molex 8981-04P or equivalent
- FDD 4 Pins x 2 AMP 171822-4 or equivalent
- Serial ATA x 8 Molex 675820000 or equivalent
- CPU EPS 8 Pins x 2 Molex 39-01-2080 or equivalent
- PCIe 6 + 2 pin x 4 (Max Optional 10 sets)

Standard Output Cable Length:

610 mm / 24 Inches

PCB specific:

- 8 Layer 1.78mm
- Copper: 3 Oz each layer
- Thickness: 1.6 mm
- Material: FR4

- PCB material origin: Taiwan

Power Chassis Dimension:
255(L) x 150(W) x 86(H) mm / 10.039(L) x 5.9(W) x 3.39(H) Inches

Net Weight:
4.7 kg / 10.356 lbs

Gross Weight:
4.8 kg / 10.582 lbs

Packing Detail:
2 PCs
GW 10.8 kg

Measurement of Carton:
41 x 28 x 41 cm
0.047 m3 / 1.66 Cuft